SHARP DV-5450SC/SN

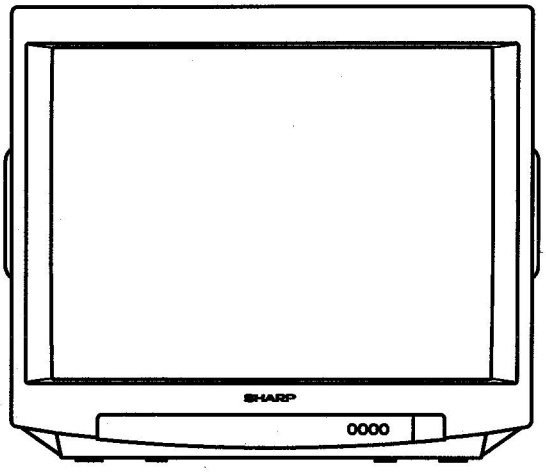
MODEL

SERVICE MANUAL

SHARP SERVICE MANUAL

SEDFDV5450SC/

S 3 B CHASSIS



PAL/SECAM SYSTEM COLOUR TELEVISION

MODEL DV-5450SC

In the interests of user-safety (required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

CONTENTS

	PAGE
• ELECTRICAL SPECIFICATIONS	2
• IMPORTANT SERVICE NOTES	2
• SERVICE ADJUSTMENTS	3-6
• CHASSIS LAYOUT DIAGRAM	7-8
• PRINTED WIRING BOARDS	9-11
• SCHEMATIC DIAGRAMS AND WAVEFORMS	12-19
• PARTS LIST	20-25

SHARP CORPORATION

ELECTRICAL SPECIFICATIONS

Aerial Input Impedance	75 ohm unbalanced
Convergence	Self Converging System
Focus	Bipotential electrostatic
Audio Power Output Rating	4 Watt (M.P.O.)
Picture IF Carrier Frequency	38.9 MHz
a) Sound IF Carrier Frequency	33.4 MHz
b) Sound IF Carrier Frequency	32.4 MHz
Colour Sub-Carrier Frequency	34.47 MHz (Nominal)

Power Input	220/240 Volts AC 50 Hz
Power Consumption	75 W
Speaker Size	10 cm (Round)
Voice Coil Impedance	8 ohm
Sweep Deflection	Magnetic
Tuning Ranges	48.25 MHz ÷ 855.5 MHz CATV Special channels

Specifications are subject to change without prior notice.

WARNING

The chassis in this receiver is partially hot. Use an isolation transformer between the line cord plug and power receptacle, when servicing this chassis.
To prevent electric shock, do not remove cover. No user — serviceable parts inside. Refer servicing to qualified service personnel.

IMPORTANT SERVICE NOTES

Maintenance and repair of this receiver should be carried out by qualified service personnel only.

SERVICING OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

When servicing the high voltage system, remove static charge from it by connecting a 10 k ohm resistor in series with an insulated wire (such as a test probe) between picture tube ground tag and high voltage lead (AC line cord should be disconnected from AC outlet).

1. Picture tube in this receiver employs integral implosion protection.
2. Replace with tube of the same type number for continued safety.
3. Do not lift picture tube by the neck.
4. Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage completely.

X-RAY

This receiver is designed so that any X-Ray radiation is kept to an absolute minimum. Since certain malfunctions or servicing may produce potentially hazardous radiation with prolonged exposure at close range, the following precautions should be observed.

1. When repairing the circuit, be sure not to to increase the high voltage to more than 30.0 kV (at beam 1000 μA) for the set.
2. To keep the set in a normal operation, be sure to make it function on 23.5 kV ± 1.5 kV (at beam 1000 μA) in the case of the set. The set has been factory adjusted to the above mentioned high voltage. If there is a possibility that the high voltage fluctuates as result of the repairs, never forget to check for such high voltage after the work.
3. Do not substitute a picture tube with unauthorized types or brands which may cause excess X-Ray radiation.

BEFORE RETURNING THE RECEIVER

In addition to the checks necessary as a result of a repair having been carried out, the following additional safety checks should also be made before returning the units to the user.

1. Inspect all lead insulation to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Inspect all protective devices such as non-metallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators, etc.

SERVICE ADJUSTMENTS
IF ADJUSTMENT

1. Video Detector T 202:

1. Apply a carrier frequency of 38.9 MHz to pin ⑤ of IC 201. Connect pin ⑥ of IC 201 to ground. (Use a probe as shown in fig. 1).

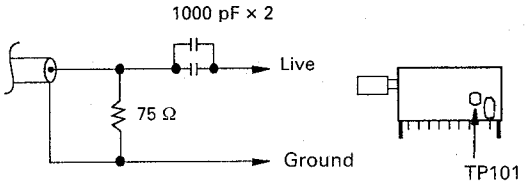


Fig. 1

2. Connect TP 208 to ground (AFT OFF).
3. Apply 4 V DC to TP 204, (Pin ② of IC 201).
4. Measure voltage at TP 203 using oscilloscope on 1 V/DIV DC range.
5. Adjust T 202 to minimum voltage.

Fine Adjustment:

6. Increase sensitivity of oscilloscope. Repeat step 5.

2. Sound Detector T 301:

1. Apply a carrier frequency of 5.5 MHz to pin ⑱ of IC 201. (Use a probe as shown in fig. 1).
2. Connect TP 301 to ground.
3. Using a DC voltmeter on the 10 V full-scale range, measure voltage at pin ⑪ of IC 201, should read 4.5 V DC approx.
4. Disconnect TP 301 from ground.
5. Adjust T 301 to obtain the same voltage as step 3.

3. AFT T 201:

1. Connect a sweep generator to Tuner TP 101. (Use a probe as shown in fig. 1).
2. Take reading at pin ⑬ of IC 201. (See waveform in fig. 2).
3. Adjust T 201 to align 38.9 MHz marker with retrace line (see fig. 2).

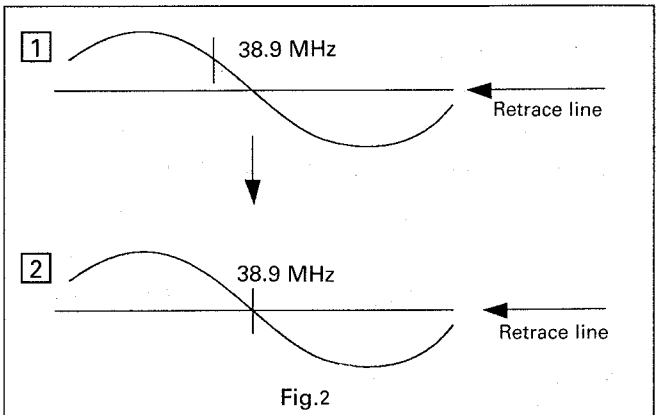


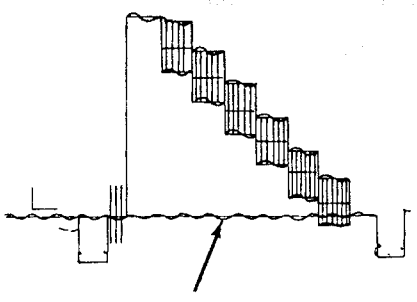
Fig.2

Sweep generator setting conditions.
Marker: 38.9 MHz.
Output level: 80 dB.

4. IF Adjustment:

Fine adjustment of AFT:

1. Receive colour bar signal.
2. Apply an unmodulated carrier frequency of 38.9 MHz to pin ⑧ of Tuner (IF OUT).
3. Take reading at TP 203 using oscilloscope on 1 V/DIV DC range.
4. Adjust T 201 to zero beat (see fig. 3).



Adjust to obtain zero beat.

Fig. 3

5. RF-AGC R 208:

1. Receive colour bar signal with a level of 53 dB/μV (over 75 Ω).
2. Measure voltage at Tuner pin AGC using a DC voltmeter on the 10 V full-scale range.
3. Adjust R 208 to obtain the maximum voltage.
4. Readjust R 208 to 0.1 V below maximum voltage.

Screen Adjustment:

7. Focus:

1. Apply mains voltage of 220 V AC/50 Hz to TV.
2. Receive Philips pattern signal to a level between 60 and 80 dB.
3. Set contrast to 10/10, brightness to 5/10 and colour to 0/10.
4. Adjust focus potentiometer to obtain maximum definition.

8. G 2:

1. Apply mains voltage of 220 V AC/50 Hz to TV.
2. Receive black screen signal to a level between 60 and 80 dB.
3. Set contrast to 10/10, brightness to 0/10 and colour 0/10.
4. Enter into Service Mode.
5. Push CH Λ until GII appears.
6. Increase G2 potentiometer until flyback appears on screen, and OSD bar is at maximum.
7. Adjust G2 potentiometer until OSD bar is at half way position on screen.
8. Exit Service Mode.

Power Supply Adjustment:

9. + B R 739

1. Receive monoscope pattern signal.
2. Adjust contrast control to obtain a Beam Current of 0.7 mA(0.7V between TP 601 and TP 602) set volume control to minimum.
3. Measure voltage at catode of D 712 using a DC voltmeter on the 20 V full-scale range.
4. Adjust R 739 to obtain a voltage of 14 V DC ±0.05 V.

SERVICE MODE FUNCTION

This mode function is provided to assist with the settings of those adjustments that may vary from one Picture Tube to another, or between models.

In order to use the Service Mode

1. Connect Test Pattern signal to antenna terminal.
2. Connect a jump wire between terminals ② (GND) and ⑥ of the service slot situated in the Video Unit.
3. Press MODE button on R/C —SERV— will appear on screen.
4. Remove a jump wire of the service slot.
5. Select adjustment using buttons ∧ CH ∨ .

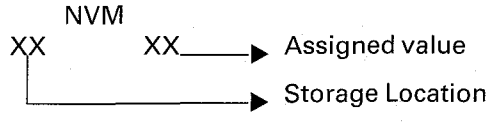
	Displayed on Screen	Function
	—SERV—	Indicates operative Service Mode.
a.	HOR AM	Horizontal Amplitude (DON'T TOUCH).
b.	BL PHA	Blanking Phase shift.
c.	VER PO	Vertical position shift.
d.	VER AM	Vertical Amplitude shift.
e.	P-AMPL	Parabola Amplitude (DON'T TOUCH).
f.	VER SM	Vertical Symmetry alteration.
g.	LUMA-D	Luma Delay.
h.	P-TILT	Parabola Adjustment (DON'T TOUCH).
i.	G II	Indication of G2 adjustment.
j.	B-B-CO	Blanking Breathing Correction (DON'T TOUCH).
k.	GAIN R	Red Gain.
l.	GAIN G	Green Gain.
m.	GAIN B	Blue Gain.
n.	NVM	Access to NVM memory.

6. For "a" thru "m" Selections.
   Adjustment to a selection can be made by pressing buttons ∧ ∨
   A colour bar is displayed on the OSD to indicate the adjustment position.

(MINIMUM) (MAXIMUM)

For «n» Selection.

NVM storage location settings variants



In order to have access to the desired storage location, buttons ∧ ∨ should be pressed, as required, to obtain a higher or lower location, respectively. Bear in mind that, for storage location indication a hexadecimal numerical system is used, instead of a decimal system.

0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, 10, 11, ... 19, 1A, 1B, 1C, 1D, 1E, 1F, 20, 21, ...,.. 99, 9A, 9B, 9C, 9D, 9E, 9F, A0, A1, ..., B0, ..., C0, ..., D0, ..., E0 ..... F0, F1, F2, F3, F4, F5, F6, F7, F8, F9, FA, FB, FC, FD, FE, FF.

From the last location FF to the first 00 can be reached by increasing and from first to last by decreasing. Once the storage location to be varied has been selected, its value can be modified by the bits that form part of the storage location numerical buttons, numbers [0] to [7], respectively. This switches its binary number from and between 0 and 1 each time one of the buttons is pressed.

$$[0] = 2^0 = 1,\ [1] = 2^1 = 2,\ [2] = 2^2 = 4,.....$$

7. The changes introduced are automatically memorized.
8. Having finalized adjustments, push MODE again to exit Service Mode.

GEOMETRY ADJUSTMENT PROCEDURE

1. "BL PHA".
a) Receive Philips pattern signal.
b) When ∧ button is pressed, picture moves to the left.
c) When ∨ button is pressed, picture moves to the right.
d) Adjust the horizontal location to obtain picture centering (fig. 1).

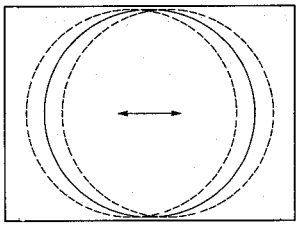


Fig. 1

2. "VER PO".
a) Receive Philips pattern signal.
b) When ∧ button is pressed, picture moves up.
c) When ∨ button is pressed, picture moves down.
d) Adjust the horizontal location to obtain picture centering (fig. 2).

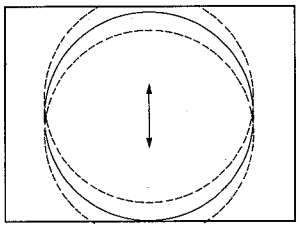


Fig. 2

3. "VER AM".
a) Receive Philips pattern signal.
b) When ∧ button is pressed, vertical size of picture increases.
c) When ∨ button is pressed, vertical size of picture decreases.
d) Adjust the vertical size to obtain overscan (fig. 3).

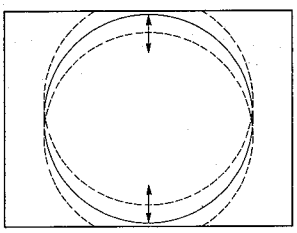


Fig. 3

4. "VER SM".
a) Receive Philips pattern signal.
b) When ∧ button is pressed, upper picture scanning decreases and lower picture scanning increases.
c) When ∨ button is pressed, upper picture scanning increases, and lower picture scanning decreases.
d) Adjust the Vertical Symmetry to obtain symmetrical scanning between upper and lower picture (fig. 4).

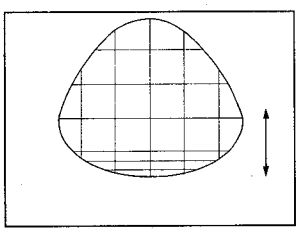


Fig. 4

COLOUR ADJUSTMENT

5. "LUMA D".
a) Receive Philips pattern signal.
b) When ∧ button is pressed, luma phase delays.
c) When ∨ button is pressed, chroma phase delays.
d) Adjust the Chroma-Luma delay.

The following adjustments are only required when the Picture Tube is changed.

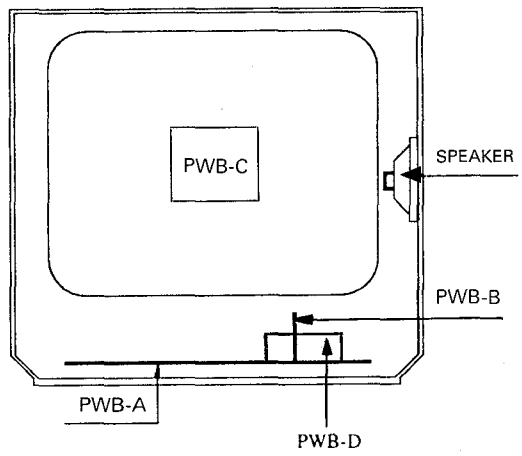
6-8. "GAIN R", "GAIN G", "GAIN B".
a. Adjust G2.
b. Tune in white card.
c. Adjust colour to minimum.
d. Position colourimeter in the center of screen.
e. Using brightness and contrast buttons, select a luminance of ≈ 120 NITS.
f. Operate again in Service Mode and select location GAIN R, GAIN G, GAIN B to obtain colour coordinates:

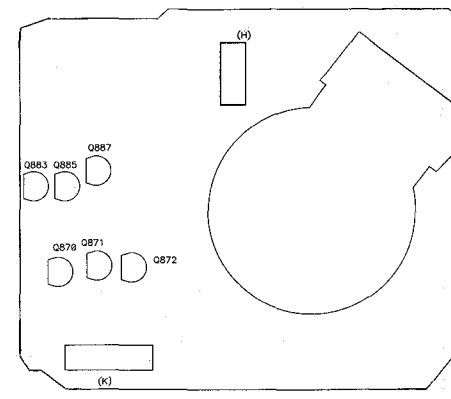
$$X = 0.290 \pm 0.015$$
$$Y = 0.284 \pm 0.015$$

g. Exit Service Mode and check colour coordinates 'X' and 'Y' at 20 and 120 NITS. It may be necessary to repeat procedure.

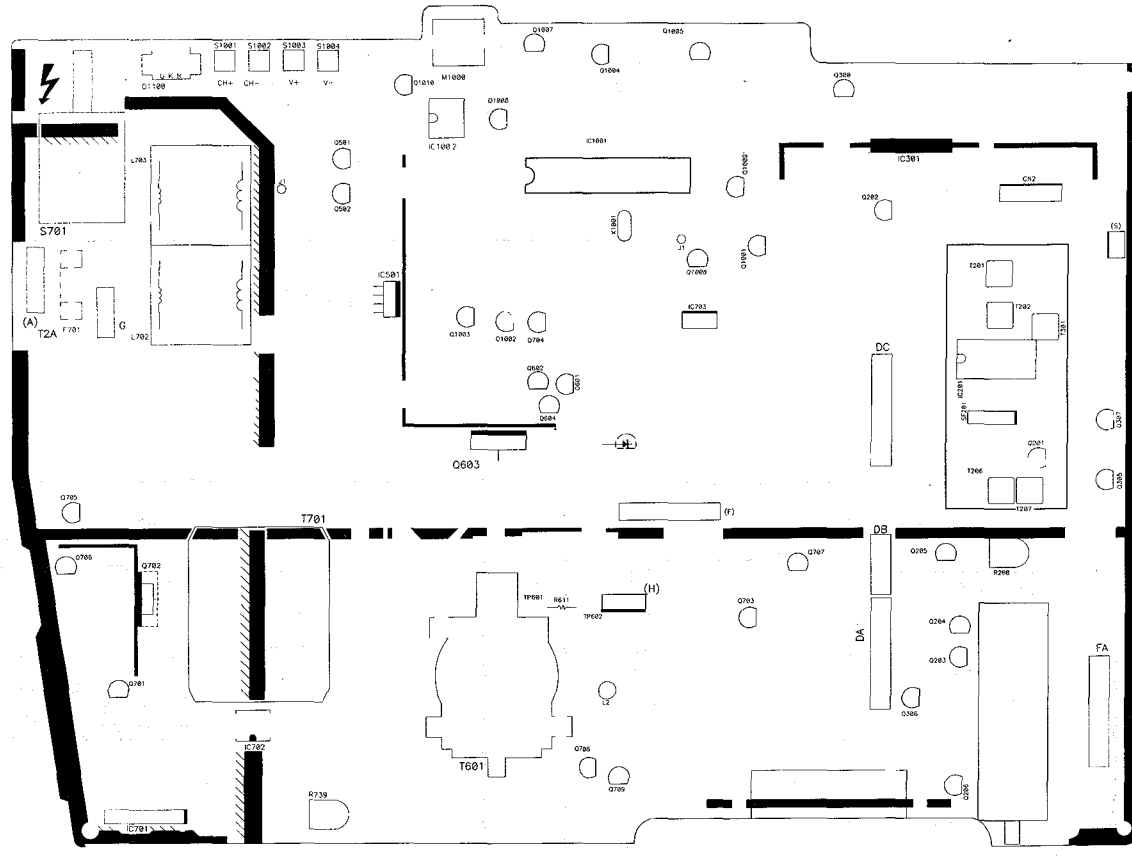
NOTE:
Locations: GAIN R alter 'X' coordinate; GAIN G alter the 'Y' coordinates; GAIN B alter the 'X' and 'Y' coordinates.

CHASSIS LAYOUT



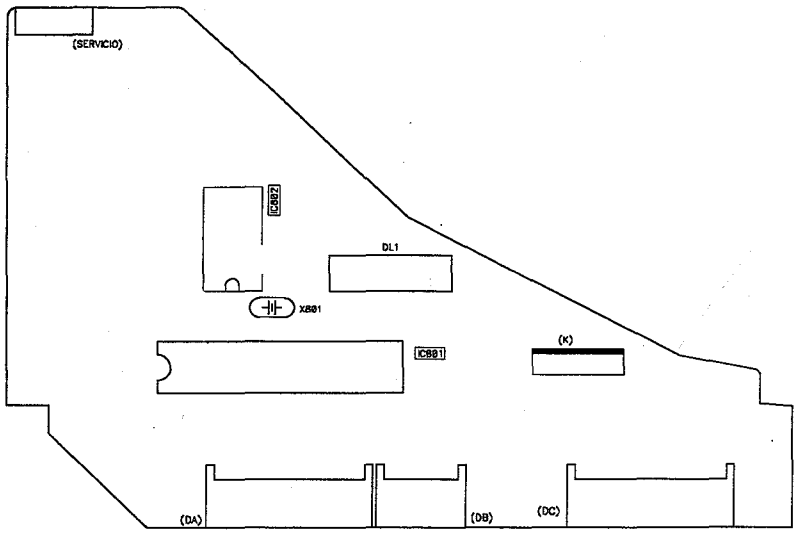


PWB-C

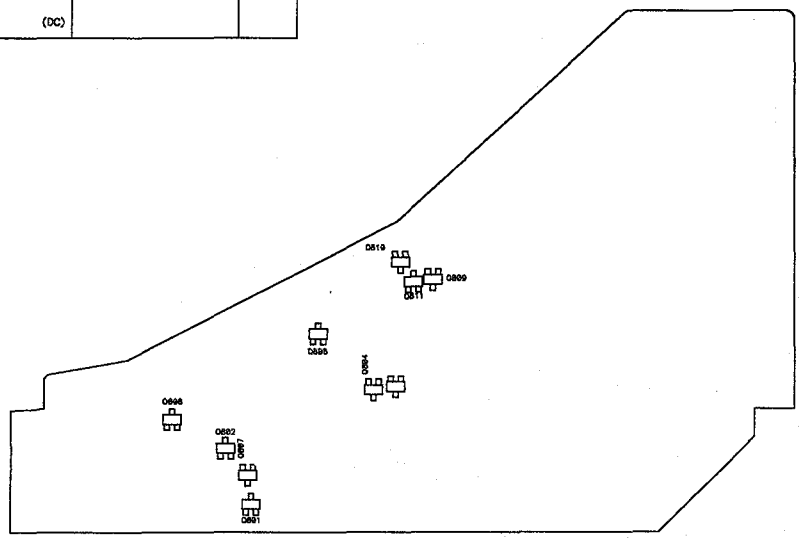


PWB-A

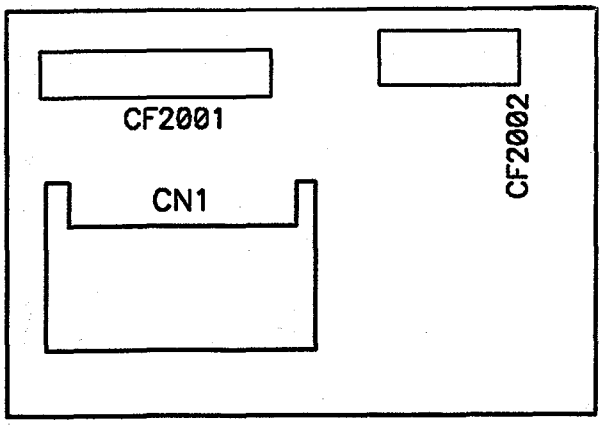
CHASSIS LAYOUT



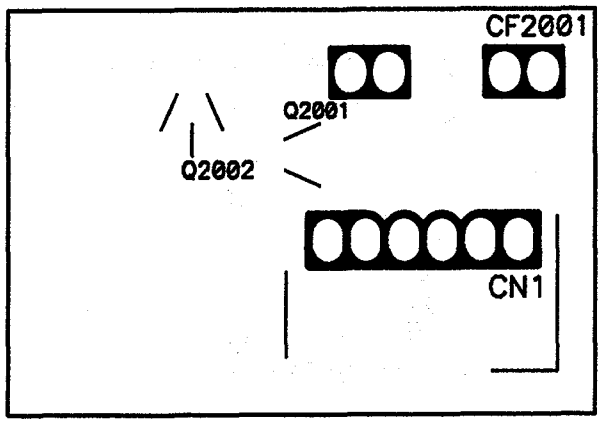
1/2 PWB - B



1/2 PWB - B

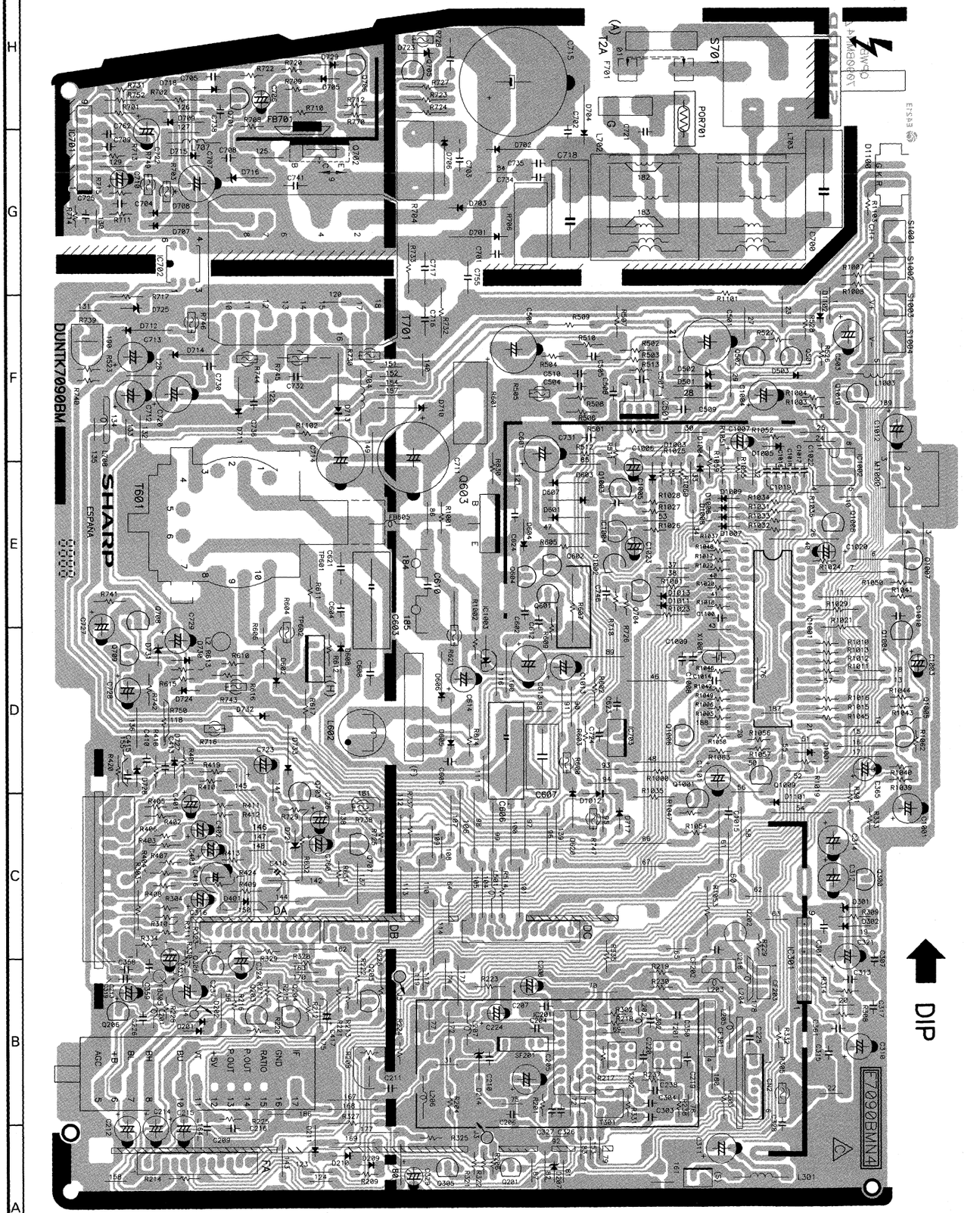


1/2 PWB-D



1/2 PWB-D

PRINTED WIRING BOARD



PWB-A

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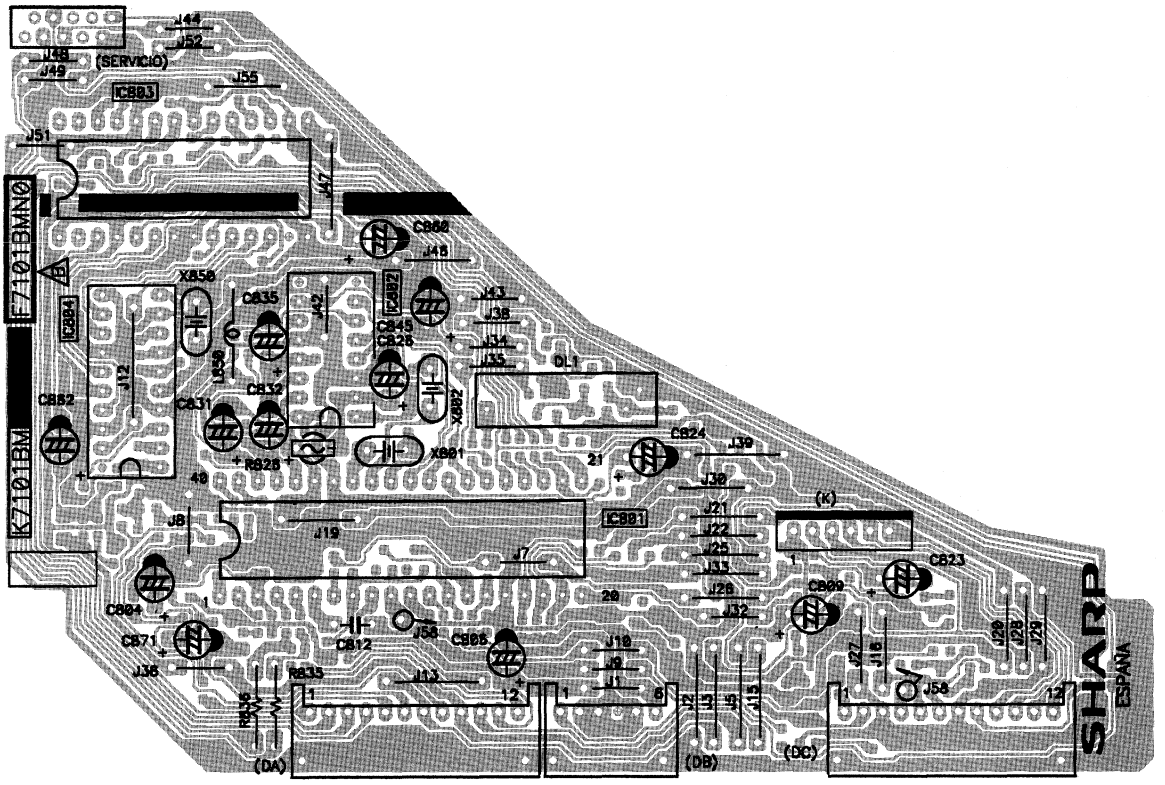
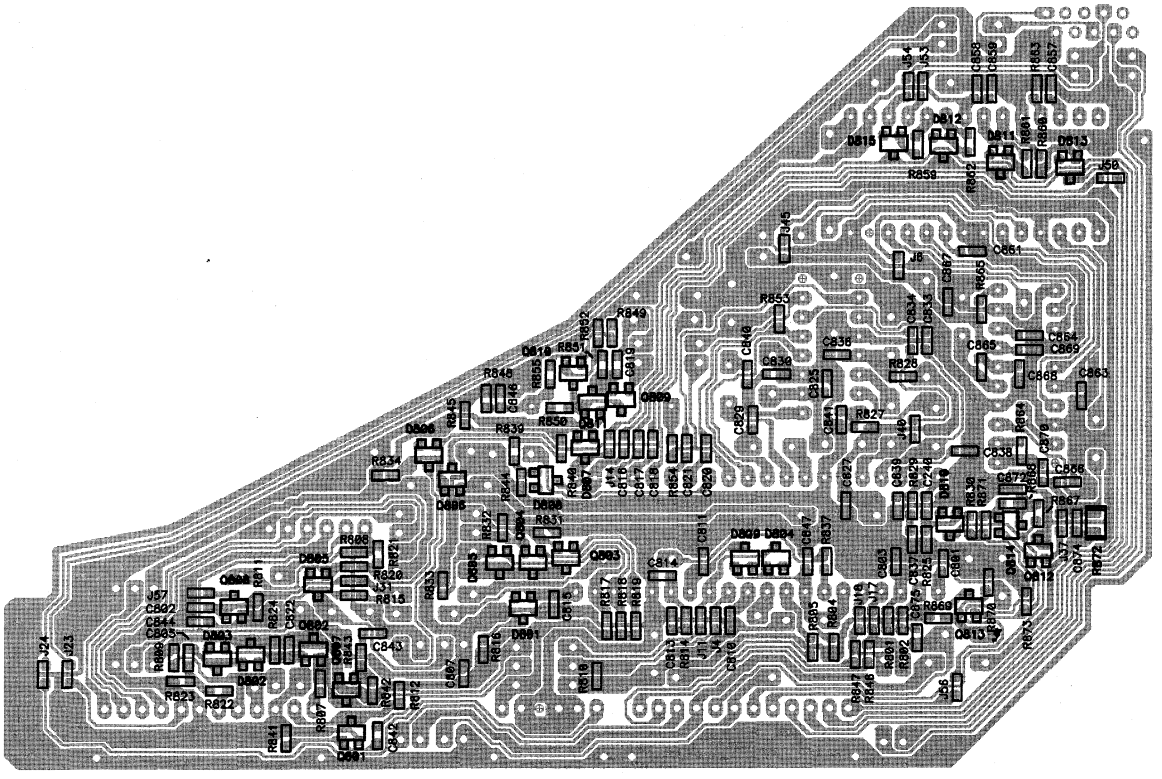
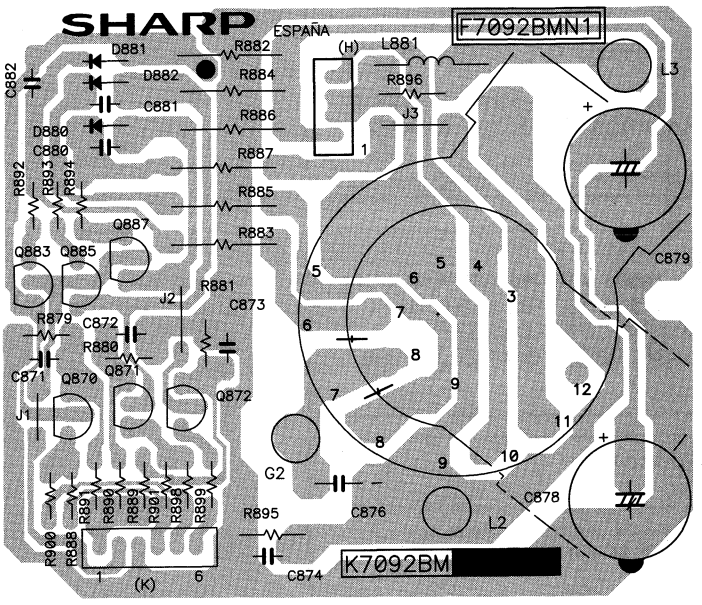


1/2 PWB-B

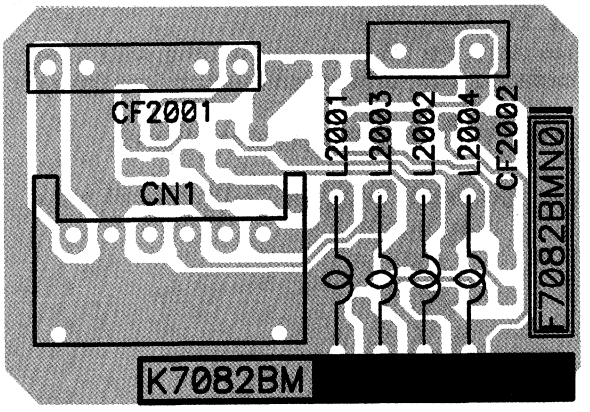


1/2 PWB-B

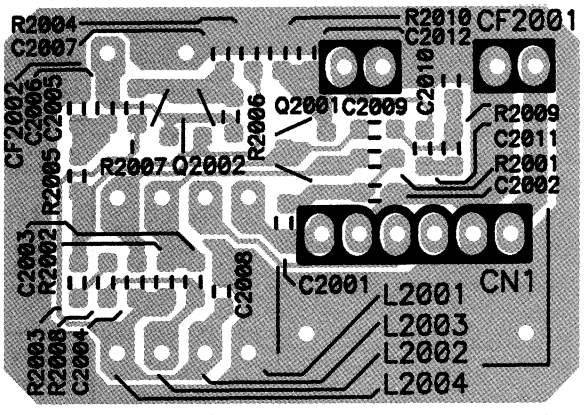
PRINTED WIRING BOARD



PWB-C



1/2 PWB-D



1/2 PWB-D

DESCRIPTION OF SCHEMATIC DIAGRAM

SAFETY NOTE:

1. DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.
2. SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.

IMPORTANT SAFETY NOTICE:

PARTS MARKED WITH "⚠" (▒▒) ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

Service precaution:

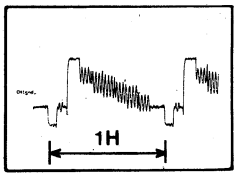
The area enclosed by this line (– · – · –) is directly connected with AC Mains Voltage. When servicing the area connect an isolating transformer between TV receiver and AC line to eliminate hazard of electric shock.

NOTE:

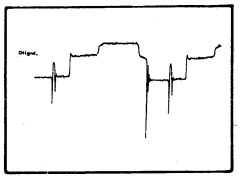
1. The unit of resistance "ohm" is omitted (k = 1000 ohms, M = Megaohm).
2. All resistors are 1/8 watt, unless otherwise noted.
3. All capacitors μF, unless otherwise noted (p=μμF).

WAVEFORM MEASUREMENT CONDITIONS

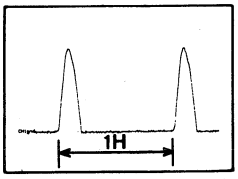
Colour bar generator signal of 70 dB from RF input.



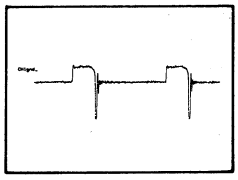
1 (2Vp-p)



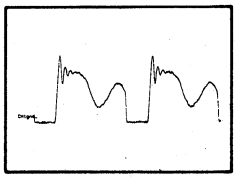
2 (4Vp-p)



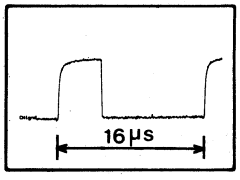
3 (980Vp-p)



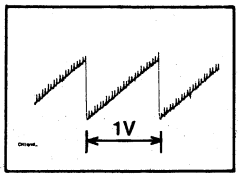
4 (15Vp-p)



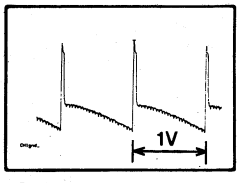
5 (768Vp-p)



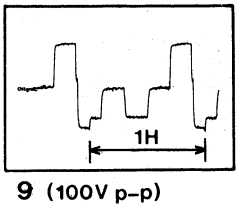
6 (16Vp-p)



7 (1,8V p-p)

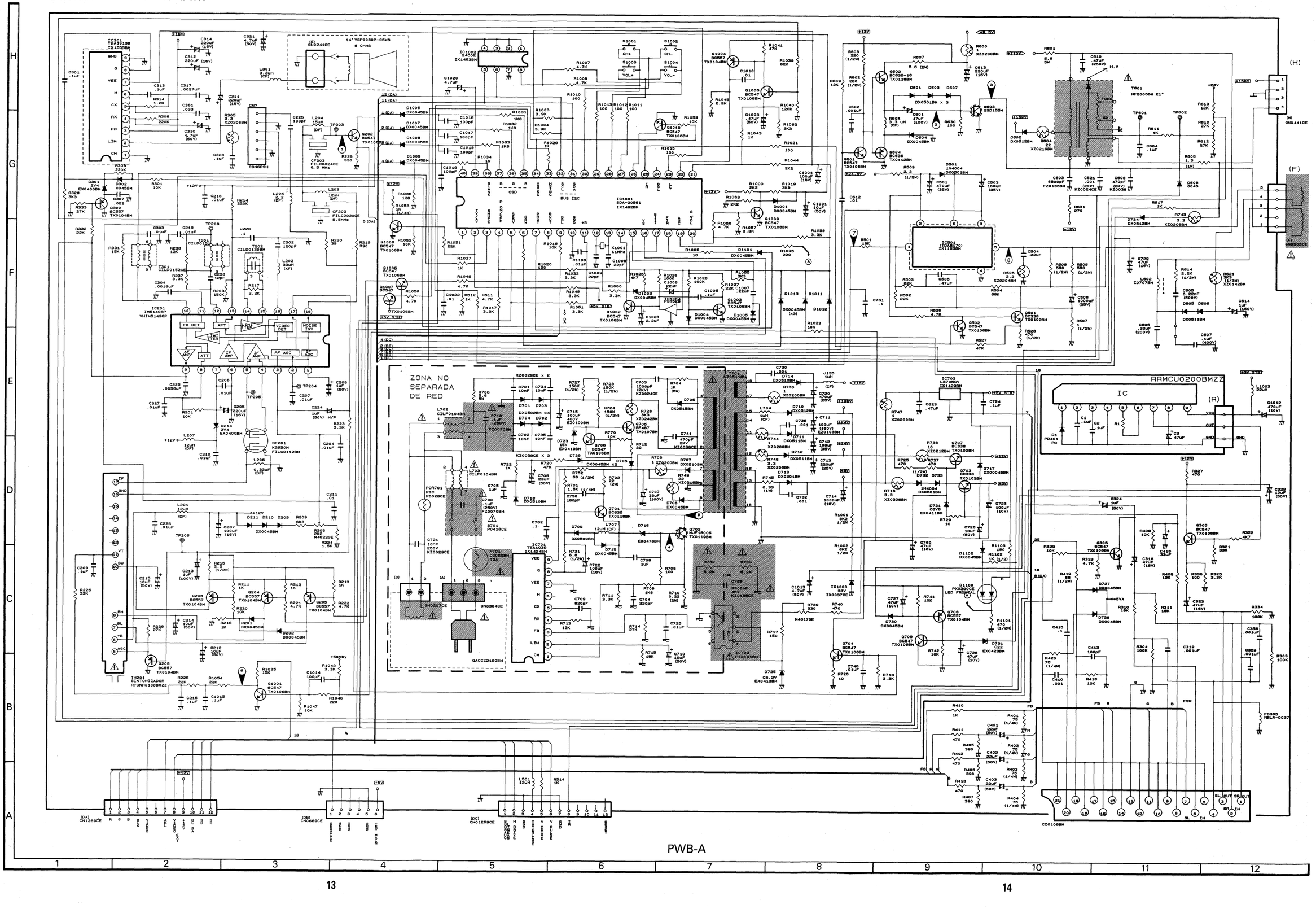


8 (50V p-p)

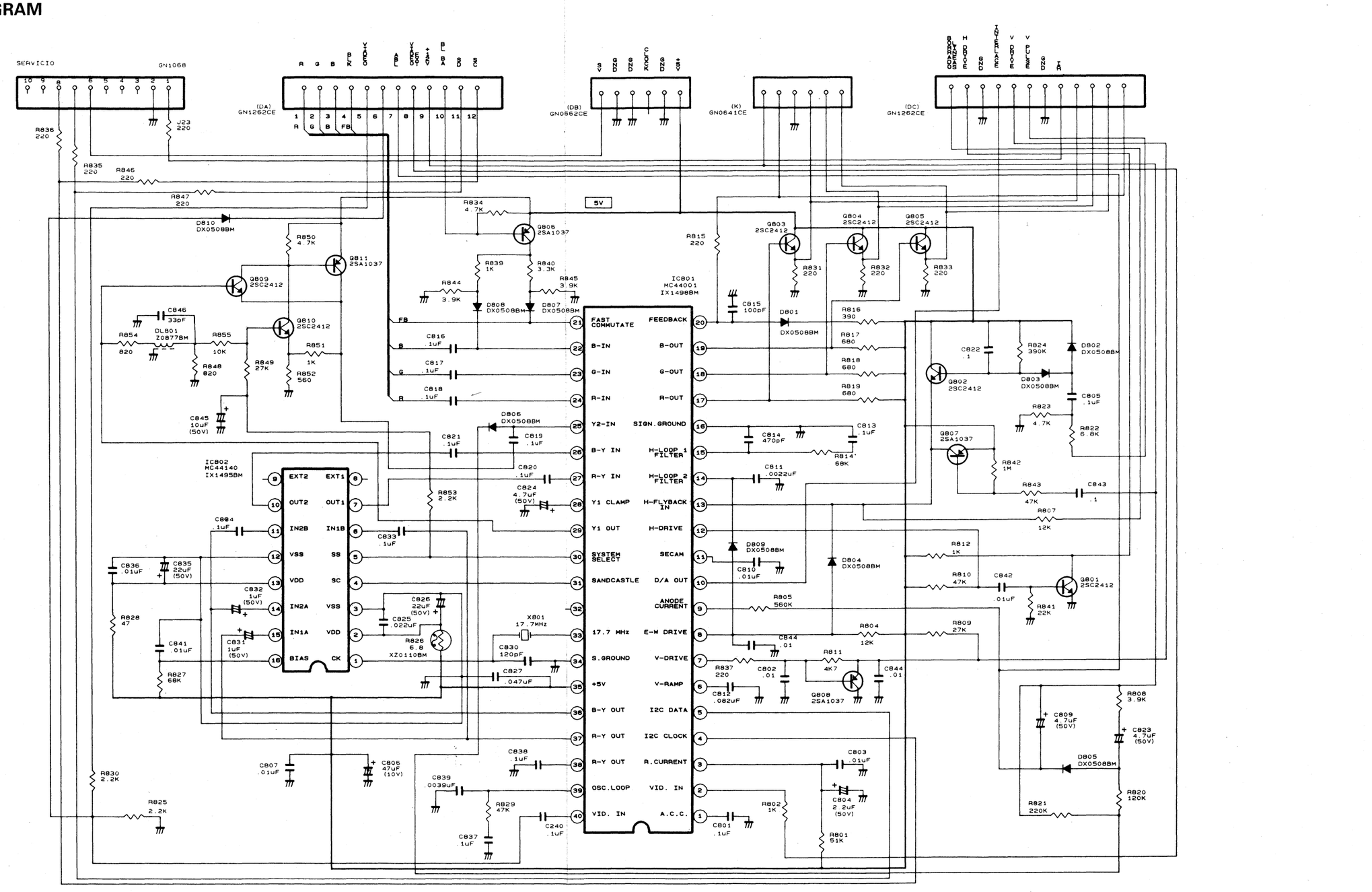


9 (100V p-p)

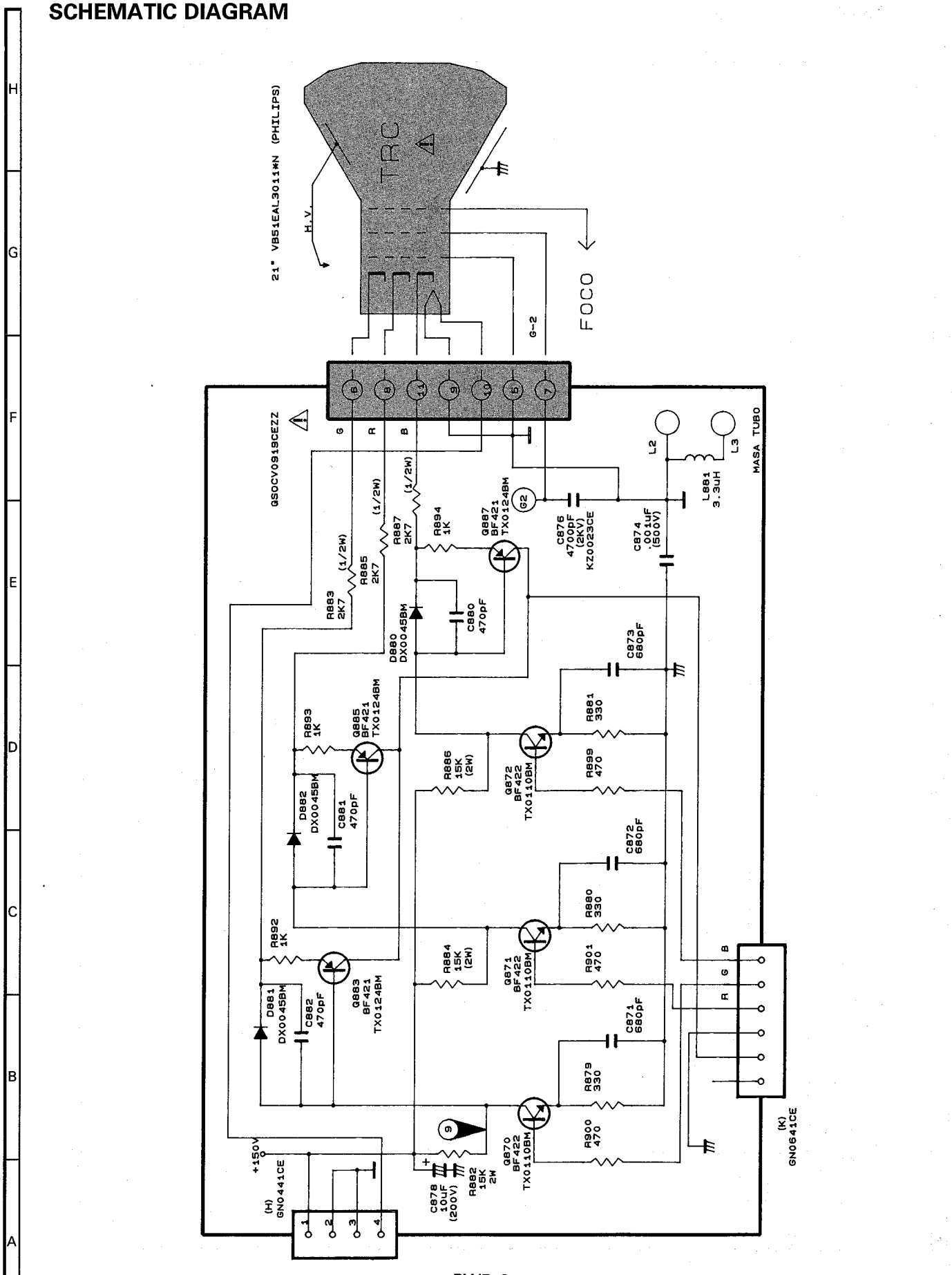
SCHEMATIC DIAGRAM



SCHEMATIC DIAGRAM

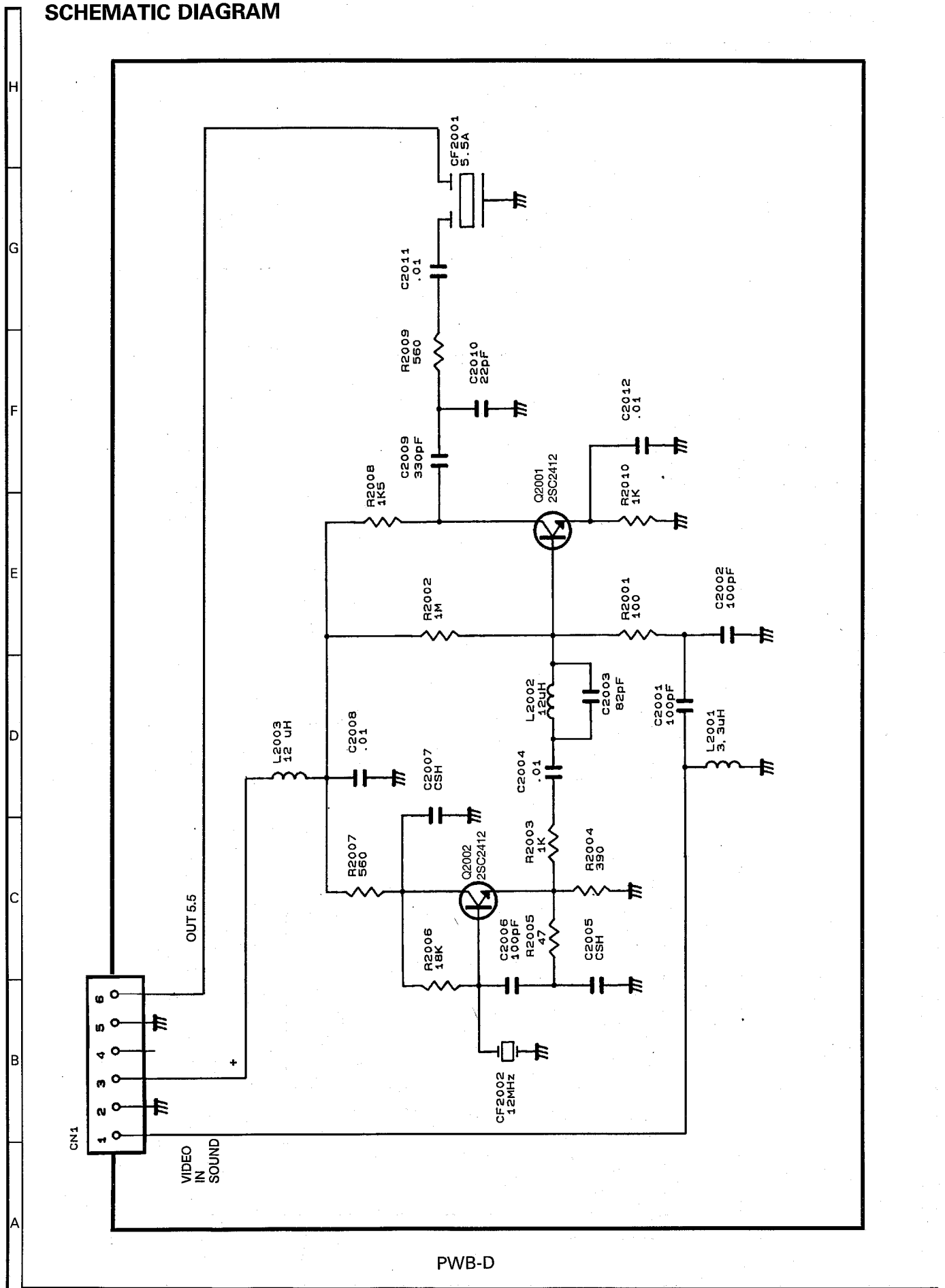


SCHEMATIC DIAGRAM



PWB-C

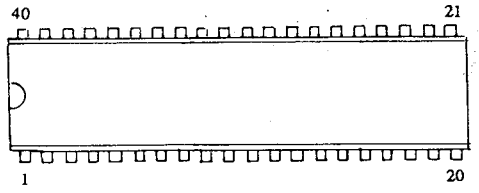
SCHEMATIC DIAGRAM



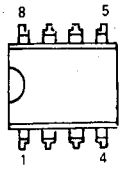
PWB-D

SOLID STATE DEVICE BASE DIAGRAM

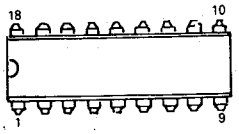
RH-IX1492BMN2
RH-IX1498BMZZ



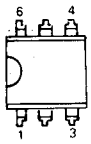
CH-IX1463CJC3



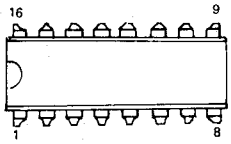
VHIM51496P/-1



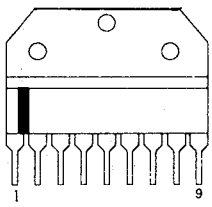
RH-FX0101BMZZ



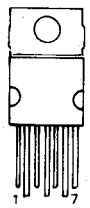
RH-IX1495BMZZ



RH-IX1424BMZZ
RH-IX1555BMZZ



RH-IX1163BMZZ



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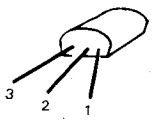
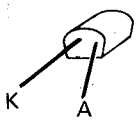
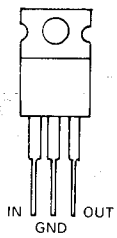


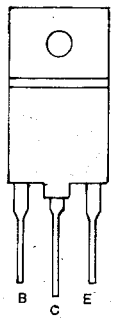
RH-IX0037CEZZ



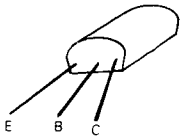
RH-IX1429BMZZ



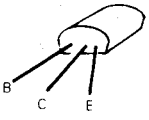
VS2SD1554//2:E



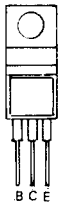
RH-TX0104BMZZ
RH-TX0102BMZZ
RH-TX0106BMZZ



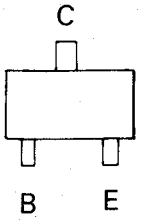
RH-TX0107BMZZ
RH-TX0110BMZZ
RH-TX0112BMZZ
RH-TX0124BMZZ
RH-TX0118BMZZ



RH-TX0119BMZZ



VS2SA1037KQ-1
VS2SC2412KQ-1
(SMD COMPONENT)



PARTS LIST

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual. Electrical components having such features are identified by ⚠ in the Replacement Parts list.
The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION
5. CODE
6. QUANTITY

★ MARK: SPARE PARTS DELIVERY SECTION

REF. NO.	PART NO.	★	DESCRIPTION	CODE
	PICTURE TUBE			
⚠	VB51EAL3011*N	S	CRT	CL
⚠	RCILG0408BMZZ	S	Degausing Coil	AP
	PRINTED WIRING BOARD ASSEMBLIES (Not replacement item, except Video Unit)			
PWB-A	—	—	Mother Unit	—
PWB-B	DUNTK7101CJV6	S	Video Unit	BM
PWB-C	—	—	CRT Socket Unit	—
PWB-D	—	—	Sound Converter Unit	—
PWB-A	**MOTHER UNIT**			
	TUNER			
	NOTE: The parts shown here are supplied as an assembly but not separately.			
TH0201	RTUNH0100BMZZ	S	Hyperband Tuner	BE
	INTEGRATED CIRCUITS			
IC 0201	VHIM51496P/-1	S	M51496P	AL
IC 0301	RH-IX1555BMZZ	S	TDA1013B	AL
IC 0501	RH-IX1163BMZZ	S	TDA8170	AM
IC 0701	RH-IX1424BMZZ	S	TEA1039	AN
⚠IC 0702	RH-FX0101BMZZ	S	MOC8101T	AE
IC 0703	RH-IX1429BMZZ	S	L7805CV	AE
IC 1001	RH-IX1492BMN2	S	SDA20561-A535	AX
IC 1002	CH-IX1463CJC3	S	NVM24C02	AM
IC 1003	RH-IX0037CEZZ	S	UPC574J	AD
IC 1004	VHIPST529C2-1	J	T529C	AD

REF. NO.	PART NO.	★	DESCRIPTION	CODE
	TRANSISTORS			
Q 0202	RH-TX0106BMZZ	S	BC 547	AB
Q 0203, 0204, 0205, 0206, 0300	RH-TX0104BMZZ	S	BC 557	AA
Q 0305, 0306	RH-TX0106BMZZ	S	BC 547	AB
Q 0501	RH-TX0102BMZZ	S	BC 338	AB
Q 0502, 0601	RH-TX0106BMZZ	S	BC 547	AB
Q 0602	RH-TX0118BMZZ	S	BC 635 ß > 100	AC
Q 0603	VS2SD1554//2E	S	D 1554	AL
Q 0604	RH-TX0112BMZZ	S	BC 636	AB
Q 0701	RH-TX0118BMZZ	S	BC 635 ß > 100	AC
Q 0702	RH-TX0119BMZZ	S	MJF 18006	AL
Q 0703	RH-TX0102BMZZ	S	BC 338	AB
Q 0704	RH-TX0106BMZZ	S	BC 547	AB
Q 0705	RH-TX0107BMZZ	S	BF 487	AC
Q 0706	RH-TX0106BMZZ	S	BC 547	AB
Q 0707	RH-TX0102BMZZ	S	BC 338	AB
Q 0708	RH-TX0104BMZZ	S	BC 557	AA
Q 0709, 1001, 1002, 1003	RH-TX0106BMZZ	S	BC 547	AB
Q 1004	RH-TX0104BMZZ	S	BC 557	AA
Q 1005, 1006, 1007, 1008, 1009, 1010	RH-TX0106BMZZ	S	BC 547	AB
	DIODES			
D 0201, 0202, 0209, 0210, 0211	RH-DX0045BMZZ	S	1N4148	AA
D 0214	RH-EX0400BMZZ	S	BZX79C2V4	AB
D 0301	RH-DX0045BMZZ	S	1N4148	AA
D 0501, 0601	RH-DX0501BMZZ	S	1N4004	AA
D 0602	RH-DX0512BMZZ	S	1N4936	AB
D 0603	RH-DX0501BMZZ	S	1N4004	AA
D 0604	RH-DX0045BMZZ	S	1N4148	AA
D 0605, 0606	RH-DX0511BMZZ	S	1N4935	AB
D 0607	RH-DX0501BMZZ	S	1N4004	AA
D 0701, 0702, 0703, 0704	RH-DX0502BMZZ	S	1N4005	AA
D 0705	RH-DX0045BMZZ	S	1N4148	AA

REF. NO.	PART NO.	★	DESCRIPTION	CODE
D 0706	RH-DX0515BMZZ	S	1N4937	AB
D 0707	RH-DX0510BMZZ	S	1N4934	AB
D 0708	RH-DX0045BMZZ	S	1N4148	AA
D 0709	RH-DX0509BMZZ	S	1N4933	AB
D 0710	RH-DX0512BMZZ	S	1N4936	AB
D 0711, 0712	RH-DX0511BMZZ	S	1N4935	AB
D 0713	RH-DX0301BMZZ	S	BY 299	AD
D 0714	RH-DX0510BMZZ	S	1N4934	AB
D 0715	RH-DX0045BMZZ	S	1N4148	AA
D 0716	RH-EX0478BMZZ	S	1N4732 (4.7 V)	AB
D 0717	RH-DX0045BMZZ	S	1N4148	AA
D 0718	RH-DX0510BMZZ	S	1N4934	AB
D 0721	RH-EX0411BMZZ	S	BZX79C6V8	AA
D 0723	RH-EX0419BMZZ	S	BZX79C15V	AB
D 0724	RH-DX0045BMZZ	S	1N4148	AA
D 0725	RH-EX0413BMZZ	S	BZX79C8V2	AB
D 0727, 0728, 0729, 0730	RH-DX0045BMZZ	S	1N4148	AA
D 0731	RH-EX0423BMZZ	S	BZX79C22V	AB
D 0732, 0733	RH-DX0501BMZZ	S	1N4004	AA
D 1001, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1011, 1012, 1013, 1101	RH-DX0045BMZZ	S	1N4148	AA
D 1101	RH-PX0290CEZZ	S	LED	AE
D 1102	RH-DX0045BMZZ	S	1N4148	AA
			PACKAGED CIRCUIT	
POR 0701	RMPTP0028CEZZ	J	PTC	AG
X 1001	RCRSB0209BMZZ	S	Crystal 11.059 MHz	AG
			COILS	
L 0201	VP-DF120K0000	J	12 µH	AB
L 0202	VP-XF330K0000	S	33 µH	AB
L 0203	VP-DF120K0000	J	12 µH	AB
L 0205	VP-DF2R2K0000	S	2.2 µH	AB
L 0206	VP-DFR33M0000	S	0.33 µH	AB
L 0207	VP-DF120K0000	J	12 µH	AB
L 0301	VP-CF3R3K0000	S	3.3 µH	AB
L 0602	RCILZ0707BMZZ	S	Line 2106	AH
⚠L 0702, ⚠ 0703	RCILF0104BMZZ	S	Mains Filter	AM
L 0704	VP-CF1R0M0000	S	1 µH	AB
L 0707	VP-CF120K0000	S	12 µH	AB
L 1003	VP-DF220K0000	J	22 µH	AB
T 0201	RCILD0151CEZZ	J	A.F.T. Coil	AD
T 0202	RCILD0130BMZZ	S	Detector Coil	AE
T 0301	RCILD0152CEZZ	J	Sound Detector	AE
R 0605	VP-CF3R3K0000	S	3.3 µH	AB

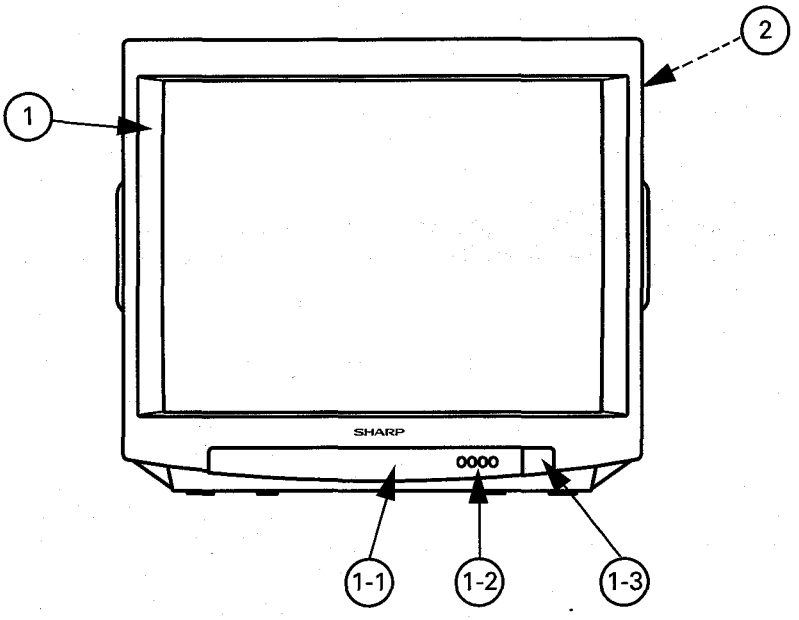
REF. NO.	PART NO.	★	DESCRIPTION	CODE
			CERAMIC FILTER	
CF 0202	RFILC0020CEZZ	J	5.5 MHz (T 5.5 B)	AE
CF 0203	RFILC0024CEZZ	S	6.5 MHz	AE
CF 0301	RFILC0061CEZZ	S	5.5 MHz (T 5.5 A)	AF
SF 0201	RFILC0112BMZZ	S	K 2950 M	AP
			TRANSFORMERS	
⚠ T 0601	RTRNF2006BMZZ	S	F.B.T.	BA
⚠T 0701	RTRNZ0511BMZZ	S	Chopper	AV
			CONTROL	
R 0208	RVR-M4622GEZZ	J	2 K 2	AB
R 0739	RVR-M4617GEZZ	S	330	AC
			CAPACITORS	
C 0205	VCEAGA1CW227M	J	220 16 V Electrolytic	AC
C 0209	RC-FZ9104BMNJ	S	0.1 63 V Mylar	AB
C 0213	VCEAGA2AW105M	S	1 100 V Electrolytic	AA
C 0216, 0220	RC-FZ9104BMNJ	S	0.1 63 V Mylar	AB
C 0224	VCE9GA1HW105M	S	1 50 V Electrol. N/P	AB
C 0225	VCCSPA1HL101J	S	100p 50 V Ceramic	AA
C 0237	VCEAGA1CW107M	S	100 16 V Electrolytic	AA
C 0238	VCCCPA1HH120J	S	12p 50 V Ceramic	AA
C 0301	RC-FZ9104BMNJ	S	0.1 63 V Mylar	AB
C 0304	RC-FZ9182BMNJ	S	1800p 63 V Mylar	AB
C 0311, 0312	VCEAGA1CW227M	J	220 16 V Electrolytic	AC
C 0313	RC-FZ9104BMNJ	S	0.1 63 V Mylar	AB
C 0314	VCEAGA1CW227M	J	220 16 V Electrolytic	AC
C 0315, 0317	RC-FZ9272BMNJ	S	2700p 63 V Mylar	AB
C 0326	VCQYSH1HM562K	S	5600p 50 V Mylar	AB
C 0328	RC-FZ9104BMNJ	S	0.1 63 V Mylar	AB
C 0350	VCCSPA1HL221J	J	220p 50 V Ceramic	AA
C 0361	RC-FZ9333BMNJ	J	0.083 63 V Mylar	AB
C 0413	VCCSPA1HL101J	J	100p 50 V Ceramic	AA
C 0415	RC-FZ9104BMNJ	S	0.1 63 V Mylar	AB
C 0501	VCEAGA1VW477M	J	470 35 V Electrolytic	AD
C 0503	VCEAGA1VW107M	J	100 35 V Electrolytic	AC
C 0504	RC-FZ9224BMNJ	S	0.22 63 V Mylar	AC
C 0505	RC-FZ9474BMNJ	S	0.47 63 V Mylar	AD
C 0506	VCEAGA1EW108M	J	1000 25 V Electrolytic	AD
C 0507	VCCCPA1HH1R5C	S	1.5 50 V Ceramic	AA
C 0509	RC-FZ9472BMNJ	S	4700p 63 V Mylar	AB
C 0510	RC-FZ9333BMNJ	S	0.033 63 V Mylar	AB
C 0601	VCEAGA2AW476M	S	47 100 V Electrolytic	AC
C 0603	RC-FZ0135BMZZ	S	6800p 1.5 kV Mylar	AE
C 0604	RC-FZ9104BMNJ	S	0.1 63 V Mylar	AB
C 0605	VCKYPA2HB221K	J	220p 500 V Ceramic	AA
C 0606	RC-FZ6334BMNJ	S	0.33 200 V Mylar	AE
C 0607	RC-FZ7104BMNJ	S	0.1 400 V Mylar	AD
C 0608	RC-KZ0038CEZZ	J	470p 2 kV Ceramic	AB
C 0610	RC-FZ6474BMNJ	S	0.47 250 V Mylar	AE
C 0612	RC-FZ9103BMNJ	S	0.01 63 V Mylar	AB
C 0613	VCEAGA1CW227M	J	220 16 V Electrolytic	AC
C 0614	VCEAGA2CW105M	S	1 160 V Electrolytic	AB
C 0621	RC-KZ0024CEZZ	J	1000 2 kV Ceramic	AC
C 0623	RC-FZ9474BMNJ	S	0.47 63 V Mylar	AD

REF. NO.	PART NO.	★	DESCRIPTION	CODE
⚠C 0700	RC-FZ0070BMZZ	S	0.1 250 V Mylar	AD
C 0701, 0702	RC-KZ0029CEZZ	J	0.01 250 V Ceramic	AC
C 0703	RC-KZ0024CEZZ	S	1000p 2 kV Ceramic	AC
C 0705	RC-FZ9104BMNJ	S	0.1 63 V Mylar	AB
C 0707	VCEAGA2AW336M	S	33 100 V Electrolytic	AB
C 0708	RC-FZ9105BMNJ	S	1 63 V Mylar	AD
C 0711	RC-EZ0258BMZZ	S	100 200 V Electrolytic	AH
C 0712	VCEAGA1VW107M	J	100 35 V Electrolytic	AC
C 0713	VCEAGA1EW227M	J	220 25 V Electrolytic	AC
C 0714	VCEAGA1CW108M	S	1000 16 V Electrolytic	AC
C 0715	RC-EZ0105BMZZ	S	100 385 V Electrolytic	AM
⚠C 0718	RC-FZ0070BMZZ	S	0.1 250 V Mylar	AD
C 0720	VCEAGA1EW477M	S	470 25 V Electrolytic	AC
C 0721	RC-KZ0029CEZZ	J	0.01 250 V Ceramic	AC
C 0722	VCEAGA1CW107M	S	100 16 V Electrolytic	AA
C 0723	VCEAGA1AW107M	S	100 10 V Electrolytic	AA
C 0724, 0731	RC-FZ9104BMNJ	S	0.1 63 V Mylar	AB
C 0734, 0735	RC-KZ0029CEZZ	J	0.01 250 V Ceramic	AC
C 0738	VCCSPA1HL181J	S	180p 50 V Ceramic	AA
C 0740	RC-KZ0024CEZZ	J	1000p 2 kV Ceramic	AC
C 0741	RC-KZ0038CEZZ	J	470p 2 kV Ceramic	AB
⚠C 0755	RC-KZ0156CEZZ	S	3300p 4 kV Ceramic	AD
C 0762	RC-FZ9104BMNJ	S	0.1 63 V Ceramic	AB
C 1004	VCEAGA1CW107M	S	100 16 V Electrolytic	AA
C 1005	RC-FZ9104BMNJ	S	0.1 63 V Mylar	AB
C 1007	RC-FZ9224BMNJ	S	0.22 63 V Mylar	AC
C 1008, 1009	VCCSPA1HL220J	S	22p 50 V Ceramic	AA
C 1012	VCEAGA1AW477M	S	470 10 V Electrolytic	AB
C 1014	VCCSPA1HL101J	J	100p 50 V Ceramic	AA
C 1015	RC-FZ9104BMNJ	S	0.1 63 V Mylar	AB
C 1016, 1017, 1018, 1019	VCCSPA1HL101J	J	100p 50 V Ceramic	AA
C 1022	RC-FZ9103BMNJ	S	0.01 63 V Mylar	AB
	RESISTORS			
R 0305	RR-XZ0206BMZZ	S	3.3 1/2 W Fuse Resistor	AB
R 0505	RR-XZ0204BMZZ	S	2.2 1/2 W Fuse Resistor	AB
R 0600	RR-XZ0200BMZZ	S	1 1/2 W Fuse Resistor	AB
R 0601	VRW-KX3HC5R6K	J	5.6 5 W Cement	AD
R 0604	RR-XZ0216BMZZ	S	22 1/2 W Fuse Resistor	AB
R 0606	VRN-VV3AB1R5J	S	1.5 1 W Metal Film	AB
R 0607	VRN-VV3LB5R6J	S	5.6 3 W Metal Film	AC
R 0621	RR-XZ0142BMZZ	S	3.3 K 1/3 W Fuse Resistor	AB
R 0702	VRN-VV3DB220J	J	22 2 W Metal Film	AB
R 0703	RR-XZ0200BMZZ	S	1 1/2 W Fuse Resistor	AB
R 0704	VRW-KP3HC102K	J	1 k 5 W Cement	AC
R 0706	VRW-KX3HC5R6K	J	5.6 5 W Cement	AD
R 0710	VRN-VV3DBR22J	J	0.22 2 W Metal Film	AB
R 0716	RR-XZ0206BMZZ	S	3.3 1/2 W Fuse Resistor	AB
R 0728	RR-XZ0242BMZZ	S	3.3 k 1/2 W Fuse Resistor	AB
R 0730	RR-XZ0200BMZZ	S	1 1/2 W Fuse Resistor	AB
⚠R 0732, ⚠ 0733	VRC-UA2HG825K	J	8.2 M 1/2 W Solid	AA
R 0738	RR-XZ0212BMZZ	S	10 1/2 W Fuse Resistor	AB
R 0743	RR-XZ0206BMZZ	S	3.3 1/2 W Fuse Resistor	AB
R 0744	RR-XZ0200BMZZ	S	1 1/2 W Fuse Resistor	AB
R 0745	VRN-VV3ABR33J	J	0.33 1 W Metal Film	AA
R 0746	RR-XZ0206BMZZ	S	3.3 1/2 W Fuse Resistor	AB
R 0747	RR-XZ0200BMZZ	S	1 1/2 W Fuse Resistor	AB
R 0749	RR-XZ0216BMZZ	S	22 1/2 W Fuse Resistor	AB
	MISCELLANEOUS PARTS			
⚠F0701	QFS-C2022TAZZ	J	Fuse 250 V 2 A	AE
F 0702	QFSHD1009CEZZ	J	Fuse Holder	AA
F 0703	QFSHD1010CEZZ	S	Fuse Holder	AB
FB 0305	RBLN-0037CEZZ	S	Ferrite Bead	AB
S 0701	QSW-P0418CEZZ	J	Power Switch	AK
S 1001, 1002, 1003, 1004	QSW-K0079GEZZ	J	Push Button (CH UP) (CH DOWN) (VOL UP) (VOL DOWN)	AB
(A)	QPLGN0304CEZZ	J	Connector	AB
(F)	QPLGN0505CEZZ	J	Connector	AB
(G)	QPLGN0207CEZZ	J	Connector	AA
(H)	QPLGN0441CEZZ	J	Connector	AB
(S)	QPLGN0241CEZZ	J	Connector	AA
(DB)	QSOCN0669CEZZ	J	Connector	AB
(DA), (DC)	QSOCN1269CEZZ	S	Connector	AD
	QSOCZ0106BMZZ	S	RGB Connector	AE
	RRMCU0200BMZZ	S	Remote Control Receiver	AN
PWB-B	**VIDEO UNIT**			
	INTEGRATED CIRCUITS			
IC 0801	RH-IX1498BMZZ	S	MC44006	BA
IC 0802	RH-IX1495BMZZ	S	MC44140	AP
	TRANSISTORS			
Q 0801, 0802, 0803, 0804, 0805	VS2SC2412KQ-1	J	BC 817 SMD	AA
Q 0806, 0807, 0808	VS2SA1037KQ-1	J	BC 807 SMD	AA
Q 0809, 0810	VS2SC2412KQ-1	J	BC 817 SMD	AA
Q 0811	VS2SA1037KQ-1	J	BC 807 SMD	AA
	DIODES			
D 0801, 0802, 0803, 0804, 0805, 0806, 0807, 0808 0809, 0810	RH-DX0508BMZZ	S	SMD	AB

REF. NO.	PART NO.	★	DESCRIPTION	CODE
			PACKAGED CIRCUITS	
X 0801	RCRSB0200BMZZ	S	Crystal 17.73 MHz	AG
			COILS	
DL 0801	RCILZ0877CEZZ	S	Delay Line	AM
			CAPACITORS	
C 0801	RC-FZ9823BMNJ	S	0.082 63 V Mylar	AB
C 0814	VCCSTV1HL471J	S	470p 50 V SMD	AA
C 0815	VCCSTV1HL101J	S	100p 50 V SMD	AA
C 0830	VCCSTV1HL101J	S	100p 50 V SMD	AA
C 0846	VCCSTV1HL330J	S	33pF 50 V SMD	AA
			RESISTOR	
R 0826	RR-XZ0110BMZZ	S	6.8 1/3 W Fuse Resistor	AB
			MISCELLANEOUS PARTS	
(DA)	QPLGN1262CEZZ	J	Connector	AC
(DB)	QPLGN0662CEZZ	J	Connector	AB
(DC)	QPLGN1262CEZZ	J	Connector	AC
(K)	QPLGN0641CEZZ	S	Connector	AB
	QSOCN1068BMZZ	S	Connector	AE
PWB-C			**CRT SOCKET UNIT**	
			TRANSISTORS	
Q 0870, 0871, 0872	RH-TX0110BMZZ	S	BF 422	AB
Q 0883, 0884, 0887	RH-TX0124BMZZ	S	BF 421	AB
			DIODES	
D 0880, 0881, 0882	RH-DX0045BMZZ	S	1N4148	AA
			CAPACITORS	
C 0874	VCKYPA2HB102K	J	1000p 500 V Ceramic	AA
C 0876	RC-KZ0023CEZZ	J	4700p 2 kV Ceramic	AD
C 0878	VCEAAA2DW106M	J	10 200 V Electrolytic	AC
			RESISTORS	
R 0882	VRS-VV3DB153J	J	15 k 2 W Metal Oxide	AA
R 0883	VRC-MA2HG272K	J	2.7 k 1/2 W Solid	AA
R 0884	VRS-VV3DB153J	J	15 k 2 W Metal Oxide	AA
R 0885	VRC-MA2HG272K	J	2.7 k 1/2 W Solid	AA
R 0886	VRS-VV3DB153J	J	15 k 2 W Metal Oxide	AA
R 0887	VRC-MA2HG272K	J	2.7 k 1/2 W Solid	AA

REF. NO.	PART NO.	★	DESCRIPTION	CODE
			MISCELLANEOUS PARTS	
⚠	QSOCV0919CEZZ	S	CRT Socket	AM
(H)	QPLGN0441CEZZ	J	Connector	AB
PWB-D			**SOUND CONVERTER UNIT**	
			TRANSISTORS	
Q 2001, 2002	VS2SC2412KQ-1	S	BC 817	AA
			COILS	
L 2001	VP-DF3R3K0000	S	3.3 µH	AB
L 2002, 2003	VP-DF120K0000	S	12 µH	AB
L 2004	VP-DF150K0000	S	15 µH	AB
			CERAMIC FILTER	
CF 2001	RFILC0061CEZZ	S	5.5 MHz	AF
CF 2002	RFILA0025CEZZ	S	Filter	AG
			CAPACITORS	
C 2001, 2002	VCCSTV1HL101J	S	100p 50 V Ceramic	AA
C 2003	VCCCTV1HH820J	S	82p 50 V Ceramic	AA
C 2005	VCCCTV1HH390J	S	39p 50 V Ceramic	AA
C 2006	VCCSTV1HL101J	S	100p 50 V Ceramic	AA
C 2009	VCCSTV1HL331J	S	330p 50 V Ceramic	AA
C 2010	VCCCTV1HH220J	S	22p 50 V Ceramic	AA
			MISCELLANEOUS PARTS	
CN	QPLGN0662CEZZ	S	Connector	AB
			MISCELLANEOUS PARTS	
⚠	CACCZ2049WEV5	S	AC Cord	AR
	RRMCG1031BMSA	S	Infrared Remote Control Unit	AW
	VSP0010PBF58 A	S	Speaker	AT

REF. NO.	PART NO.	★	DESCRIPTION	CODE
			CABINET PARTS	
1	CCABA1037BMV6	S	Front Cabinet Assembly	BG
1-1	GMADT1041BMSA	S	Window	AK
1-2	JBTN-1009BMSA	S	Push Buttons (UP DOWN)	AC
1-3	JBTN-1010BMSA	S	Push Buttons (MAINS)	AD
2	GCABB1016BMV8	S	Rear Cabinet	BB



PART NO.	DESCRIPTION
1.	Television
2. RRMCG1031BMSA	Infrared Remote Control Unit
3. UBATU0007UMZZ	Batteries (IR R/C)
4. TINS-6181BMN1	Operation Manual
5. TGAN-1181BMZZ	Guarantee Card
6. —	Packing Material
7. —	Packing Case